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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Robin J. Blackwell

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

JAKOVAC, RYAN J

ART UNIT

PAPER NUMBER

2445

MAIL DATE

DELIVERY MODE

02/15/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,380	BLACKWELL ET AL.	
	Examiner	Art Unit	
	RYAN J. JAKOVAC	2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/30/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RESPONSE TO ARGUMENTS

1. Applicant's arguments filed 11/30/2010 have been fully considered.

Double Patenting Rejection

2. The Double Patenting rejection has been **sustained**. See the Decision on Petition under 37 C.F.R. § 1.181 of 05/06/2009.

Rejections under 35 U.S.C. § 102

3. Applicant argues that Zintel does not disclose:
 - a) “forming a hierarchy having having predetermined top level elements including a controller device type and a basic device type, and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type”
 - b) “including in the simple device description message by the second device a device type value representing the type of the second device by identifying a location of the second device within the hierarchy”
 - c) “determining by the first device that the second device is controllable by the first device based on the device type value that identifies the location of the second device within the hierarchy”
4. Regarding a), the Examiner respectfully disagrees. These limitations are described in at least [0067-0074], [0135], and [0151-0154] of Zintel. Zintel discloses a device model including device definitions, description documents, device hierarchies, and addressing schemes (Zintel, [0067-0074].). The “basic device type” with “subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depend” is analogous to Zintel’s nested devices where subsidiary devices depend from a root device (Zintel, [0072], [0135].). The “controller device type” is analogous to Zintel’s “device type” which is a high level definition of the device from which further levels of subsidiary devices do not depend. For example, the same device type would not apply to both a

clock and a TV. For example, see [0078] of Zintel: "A search for Device Type "Clock" would be used to find only stand-alone clocks."

5. Regarding b) and c), the Examiner agrees however, a new ground of rejection necessitated by the Applicant's amendments is set forth below.

6. Regarding claims 20-22, the specification is silent to the meaning of the term computer readable medium. The Examiner is interpreting the computer readable medium consistent with the non-transitory examples in the specification, paragraph [0132] such as a CD or floppy disc or memory 14 (see fig. 1). For clarification purposes the Examiner suggests amending the claim language to include a "non-transitory computer readable medium".

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

8. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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9. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 11-14, and 15-19 of copending Application No. 10/523377.

11. Although the conflicting claims are not identical, they are not patentably distinct from each other because 10/523377 substantially discloses the claimed invention. 10/523377 recites receiving a message including device type where devices having a hierarchically lower device type are capable of controlling devices having higher device types while the instant application recites that the messages includes a device type value representing a device type value and determining by the first device that the second device is controllable by the first device based on the device type value that identifies the location of the second device within the hierarchy. One of ordinary skill in the art at the time of the invention would understand that the differences amount to mere variation, Moreover it would have been obvious to one of ordinary skill in the art to incorporate the differences as taught by Zintel et al and Beaudoin et al as described below.

12. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites in part (emphasis added): “including in the simple device description message by the second device a device type value representing a type the second device by identifying a location of the second device within the hierarchy”. This limitation is inherently unclear since it is not in proper idiomatic English. The non-idoimatic nature of this claim

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language obfuscates its scope. Moreover it is unclear how a device type value is included by identifying a location of the second device within the hierarchy.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. **Claims 3-29 are rejected** under 35 U.S.C. 103(a) as being unpatentable over 2002/0029256 to Zintel et al (hereinafter Zintel) in view of US 20030112958 to Beaudoin et al (hereinafter Beaudoin.).

Regarding claims 3, 6, 11, 14, 20, and 22, Zintel teaches a method of operation of a networked device, including:

forming a hierarchy having predetermined top level elements including a controller device type (Zintel, [0069], [0073-0074], [0154], device type.) and a basic device type, and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends (Zintel, [0072], [0135], nested devices where subsidiary devices depend from a root device (i.e. basic device type with depending subsidiary devices.), but not including any further level of subsidiary device types depending from the controller device type (Zintel, see [0078], [0069], [0073-0074], [0154].);

transmitting or receiving from a first device to a second device a request for a simple device description message of defined length (Zintel, [0009-0011], abstract, retrieval of device description. See [0133-0144], Description document including device type (fig. 15.)), the simple device description message being in the form of a token-compressed message compressed from a human-readable message format (Zintel, [0010-0011], abstract, the description is written using XML based syntax.);

transmitting from the second device to the first device the simple device description message including the device type value (Zintel, document is transmitted between devices, see [0009-0011], abstract, retrieval of device description. See [0133-0144], Description document including device type (fig. 15.)); and

determining by the first device that a second device is controllable by the first device based on the device type value (Zintel, [0078], searching controllable device by device type. See also [0018], [0133-0135].) .

Zintel does not explicitly disclose that the device type value identifies the location of the second device within the hierarchy. However, Beaudoin discloses the device type value identifies the location of the second device within the hierarchy (Beaudoin, [0030], [0032].).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Beaudoin and Zintel. The motivation to do so would be in order to provide the

advantage of being able to represent a substantially real time status of the devices (Beaudoin, [0030].).

Regarding claim 23, Claim 23 recites substantially the same limitations as claim 3 as is rejected under similar rationale. Claim 23 additionally recites the limitation:

Wherein the description message further includes an identification if further information is available. However, this limitation is disclosed by at least [0257-0258] and fig. 15 of Zintel which disclose the description message further includes URL indications of further available information (manufacturer URL, model URL, etc.).

Regarding claim 4, 9 Zintel teaches the method according to claim 3 further including the acts of: establishing an address of at least one other device; sending a simple device description query message to the at least one other device requesting a simple device description; receiving from the at least one other device or devices the simple device description message of the at least one other device (Zintel, [0061], user control points initiate discovery and communicate with controlled devices. Events are received from controlled devices.).

Regarding claim 5, Zintel teaches the method according to claim 4, further comprising the acts of: sending an extended device description query message to the at least one other device requesting an extended device description from the at least one other device; and receiving from the other device an extended device description of variable length (Zintel, [0061], user control points initiate discovery and communicate with controlled devices. Events are received from controlled devices.).

Regarding claim 7, Zintel teaches the method according to claim 6 further including the act of: determining an extent to which the controller can control the at least one other device in the list of device types that can be controlled by the controller; wherein the determining act is performed by the act of determining the lowest level of device type that either is the device type of the at least one other device or is a higher level device type from which the device type of the at least one other device depends (Zintel, fig. 3, 11, 12).

Regarding claim 8, Zintel teaches the method according to claim 7 further including the acts of: receiving a controller query message from another device including a requested device type value to request whether the controller is able to control a device of the requested device type (Zintel, [0233], request to control server.); and responding with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends (Zintel, [0234], response to request.).

Regarding claim 10, Zintel teaches the method according to claim 9 wherein the predetermined top level elements in the device type hierarchy further include a composite device type, and the networked device is of the composite device type having the functionality of an integer number of other devices (Zintel, [0062], control points and controlled devices.), the method further comprising the act of: responding to a received simple device description query message by sending a simple device description message including the device type value representing the device as a composite device and further an integer sub-device number being the number of other devices (Zintel, [0062], controlled devices respond to discovery requests, accept incoming communications from control points and send events to control points. Single devices implement functionality of control point and controlled devices.).

Regarding claim 12, Zintel teaches the system according to claim 11, wherein the plurality of networked devices includes: at least one simple device without the capability to decompress messages, the at least one simple device interpreting directly compressed simple device description query messages (Zintel, [0064], service provider translates between UPnP protocols and protocols used by bridged and legacy devices.) and at least one complex device including a message decompression arrangement (184) for decompressing the messages and a message interpreter for interpreting the decompressed messages (Zintel, [0073-0075], device type identifier, device friendly name, unique device name used by devices in searching and identifying. Also, [0077], user control point uses standard http header.).

Regarding claim 13, Zintel teaches the system according to claim 11 wherein the predetermined top level elements further include a composite device type (Zintel, [0062], controlled devices respond to discovery requests, accept incoming communications from control points and send events to control points. Single devices implement functionality of control point and controlled devices.); wherein the system includes at least one networked device of the composite device type having the functionality of a predetermined number of other devices, the predetermined number being an integer greater than or equal to 2 (Zintel, fig. 2, user control point, controlled devices.); and wherein each of the at least one networked device of the composite device type responds to an incoming device query message requiring a simple device description by sending a simple device description including the device type as a composite device and a sub-device number representing the predetermined number of other devices (Zintel, abstract, retrieval of device description including model, serial number, and list of embedded devices.).

Regarding claim 15, Zintel teaches the networked device according to claim 14, wherein the message handler is arranged to carry out the acts of: establishing an address of the further device; sending a simple device description query message to further device requesting a simple device description; receiving from the further device the simple device description message of fixed length including a device type value representing a type of the further device and a field indicating whether an extended device description is available (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract.); and further arranged to optionally carry out the acts of: testing the simple device description message to determine whether an extended device description is available; sending an extended device description query message to the further device requesting an extended device description from the further device; and receiving from the further device an extended device description of variable length (Zintel, abstract, [0061-0062], also [0069], device definition.).

Regarding claim 16, Zintel teaches the networked device according to claim 14 wherein the message handler is arranged to carry out the acts of: receiving a simple device description

query message from another device requesting a simple device description; and sending to the other device the simple device description message of fixed length (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract.), the simple device description message being in a form of a token-compressed message compressed from a human-readable message format (Zintel, abstract, the description is written using XML based syntax.).

Regarding claim 17, Zintel teaches the networked device according to claim 16 further comprising a memory storing a predetermined simple device description message precompressed from human readable format, wherein the message handler is arranged to read the predetermined simple device description message from the memory and send it through the transceiver in response to an incoming device query message (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract, retrieval of device description. See also [0133-0134] and table therein. See also, fig. 25, memory.).

Regarding claim 18, Zintel teaches the networked device according to claim 17 wherein the networked device is a controller device comprising a memory containing a list of device types that can be controlled by the controller for determining the extent to which the networked device can control another device of known device type by determining a lowest level device type in the list of device types that can be controlled by the networked device that either is the known device type or is a higher level device type from which the known device type depends (Zintel, abstract, retrieval of device description including list of embedded devices. See also at least figs. 1-2, paragraphs [0002-0003].).

Regarding claim 19, Zintel teaches the networked device according to claim 18 wherein the message handler is arranged to receive a controller query message from the another device including a requested device type value to request whether the controller is able to control a device of the requested device type (Zintel, [0233], request to control server.); and to respond with a controller response message including a device type value representing the lowest level of

device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends (Zintel, [0234], response to request.).

Regarding claim 21, Zintel teaches the computer readable medium according to claim 20 for controlling a controller-type networked device, the networked device having a transport stack and an application, the computer program comprising: code implementing a transport adaption layer for interfacing with the transport stack; code implementing an application programming interface for interfacing with the application; and code implementing a messaging layer including the capabilities of sending and receiving messages in a token-encoded human readable messaging format, the code being arranged to cause the networked device: to recognize incoming device query messages requiring a simple device description response and to provide a simple device description response including a device type of controller device type; to respond to an incoming controller query message querying whether the networked device can control a predetermined device type by responding with the lowest level of device type in the list of device types that can be controlled by the networked device that either is the predetermined device type or is a higher level device type from which the predetermined device type depends (Zintel, abstract, retrieval of device description messages. Paragraphs [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices.); and to carry out the acts of: sending a device query message to another device; receiving a response from the other device indicating the device type of the other device (Zintel, abstract, retrieval of device description messages. Paragraphs [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices.), the device type being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type (Zintel, [0069], A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definitions.), and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type

(Zintel, [0002-0003], [0069], [0135], [0151-0160].); determining the extent to which the networked device can control the other device by determining the lowest level of device type that either is the device type of the other device or is a higher level device type from which the device type of the other device depends, in the list of device types that can be controlled by the networked device; and controlling the other device with the functionality of the determined lowest level of device type by sending control signals selected from a list of control signals appertaining to the determined lowest level of device type (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract, retrieval of device description. See also [0133-0134] and table therein. See also, fig. 25, memory.).

Regarding claim 24, the combination of Zintel and Beaudoin teaches the method of claim 23, wherein the hierarchy does not include devices below the top level that are directly connected to the controller so that there is no hierarchy of the controller below the top level (Zintel, see [0078], [0069], [0073-0074], [0154], device type.).

Regarding claim 26-27, the combination of Zintel and Beaudoin teaches the method of claim 23, wherein the controlled device comprises a composite device including sub-devices (Zintel, fig. 3, 4.). Zintel does not explicitly disclose wherein the description message includes a field indicating a number of the sub-devices of the composite device or wherein the field is included in the description message only when the controlled device comprises the sub-device however, Zintel discloses the message including a list of the sub devices (Zintel, fig. 15.). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a field indicating a number of the sub-devices of the composite device in order to indicate a total number of sub devices which would provide the advantage of indicating the complexity of the device. It would have been further obvious to one of ordinary skill in the art at the time of the invention to include the field only when the controlled device comprises the sub-devices in order to provide the advantage of saving processing and/or storage requirements, for example by not including the field when there were no sub-devices.

Regarding claim 28, the combination of Zintel and Beaudoin teaches the method of claim 23, wherein the description message has fixed overall length and does not contain any free text fields so that the overall length is deterministic (Zintel, fig. 15.).

Regarding claim 29, the combination of Zintel and Beaudoin teaches the method of claim 23, but does not expressly disclose further comprising the act of requesting by the controller the further information if the identification is included in the description message. However, Zintel discloses providing URL links as an identification of further information and one of ordinary skill in the art would understand that accessing the links would comprise a disclosure of requesting the further information. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the act of requesting by the controller the further information if the identification is included in the description message in order to obtain more information about the device.

19. Claims 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over 2002/0029256 to Zintel et al (hereinafter Zintel) in view of US 20030112958 to Beaudoin et al (hereinafter Beaudoin.) and further in view of US 20030023628 to Girardot et al (hereinafter Girardot).

Regarding claim 25, the combination of Zintel and Beaudoin teaches the method of claim 23 but does not expressly disclose further comprising the act of sending by the controller a compressed message to the controlled device, wherein the controlled device performs the transmitting in response to the sending act without decompressing the compressed message.

However, Girardot discloses sending by the controller a compressed message to the controlled device, wherein the controlled device performs the transmitting in response to the sending act without decompressing the compressed message (Girardot, [0011], abstract.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine sending by the controller a compressed message to the controlled device, wherein the controlled device performs the transmitting in response to the sending act without decompressing the compressed message as taught by Girardot with teachings of Zintel and Beaudoin in order to provide the advantage of reduced bandwidth utilization (Girardot, [0011].).

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN J. JAKOVAC whose telephone number is (571)270-5003. The examiner can normally be reached on Monday through Friday, 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan Jakovac/

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2445